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Published every Wednesday, by

THOMAS G. NEWMAN,
EDITOR AND PROPRIETOR.

A Few Seasonable Hints.

The usual dearth of honey in August set in a few days earlier than usual, and caused a stoppage of the honey flow in many localities—strong colonies have been gathering barely enough to supply the daily wants—and others have been living on their stores already collected. Sweet clover, catnip, mustard, etc., have been in bloom, but only yield sparingly of honey as yet—the weather has been too cool to allow the nectar to be abundant in them. In some cases, through carelessness in opening hives, robbing has been induced. In other localities but little cessation has been observed in the honey flow. Mr. Dougherty thus describes the matter in the Indiana *Farmer*:

It is encouraging to know that we have escaped the drouth which usually occurs during the latter part of July and first of August, while, of course, the bees ceased to gather a surplus, they have secured sufficient to keep them breeding right along. This enables the weak colonies to grow in fine condition, and putting the small after-swarms in fair condition to take advantage of the fall flow of honey, which, in most localities, promises to be exceptionally good, while in others insures a good supply of winter stores.

Weak colonies or nuclei can be built up very fast now. If you have empty comb or foundation to give them, they will build up rapidly on a moderate yield. Good colonies can spare a frame of brood and honey every few days, which, if given to nuclei, will build them up very fast. And just now is the time to begin to prepare for winter. See that all colonies have good laying queens, and that the queen has room to lay. If you have more colonies than you want double up the weak ones, making one good one, selecting, of course, the

fullest and best frames, for the one hive.

The honey market is developing—and there is some call for honey, but it is too early yet for a very extended sale. We hope that bee men will see to it that the local markets are well worked up, and then there will be no fear of overstocking the large markets, and thus running the prices down.

A bee-keeper, who called at our office last week, reported having worked up a nice trade in a city near by, and he confidently expected to sell not only his own crop in that way, but also the crops of all his neighboring bee-keepers. The pamphlets on "Honey as Food," that he had distributed to those he interviewed, had made much inquiry and consequent sale of honey. That is the way to do it—work up the local trade, and see that the surrounding towns are fully supplied.

■ Mr. W. Chitty, organist at Pewsey, Wiltshire, England, has sent us a copy of his newly-arranged music for the "Te Deum Landamus." It is partly founded on an air from Mendelssohn, and chiefly composed by Mr. Chitty, who will send it by mail for 12 cents, to any address. It is an excellent piece of music.

■ The new two-cent postage stamp is to be of a metallic red color, with a vignette of Washington. It will supersede the present three-cent stamp on the 1st of October.

■ The pamphlet "Honey, as Food and Medicine" is an excellent thing to give away at Fairs, where a good exhibit is made. A thousand copies will sell almost a fabulous quantity of honey, if judiciously given—say given to every one who buys a package of honey. Try it.

■ Articles for publication must be written on a separate piece of paper from items of business.

Trial Trip—25 Cents.

As the season for Fairs has arrived, and wishing to be able to reach several thousands of the old-fashioned bee-men, and by the aid of the BEE JOURNAL to lift them up to higher ground, adopting newer methods and progressive ideas, we make the following very liberal offer: We will send the Weekly BEE JOURNAL *three months on trial*, for 25 cents. In order to pay for getting up Clubs, we will give a copy of Fisher's Grain Tables, or Scribner's Lumber and Log Book, to any one who will send us five trial subscriptions (with \$1.25); for a club of ten we will give a cloth copy of Bees and Honey; for a club of 15, a cloth copy of the 7th edition of Cook's Manual of the Apiary; for a club of 25, we will present both the Manual and Bees and Honey. If any one wants these Books for nothing, here is an excellent opportunity to get them for a little exertion.

■ It is unwise to rush the honey into the market as soon as it is gathered, for it will cause a temporary glut in the market, and run the prices down. As soon as the fruit season is over, it will sell more readily.

■ Speaking of the usual August dearth in honey, an exchange remarks as follows:

There is, during August, a notable scarcity of honey flowers. This dearth commences sometimes in July. When this absence of bloom occurs, the bees are idle, and with this comes a consequent indolence of the queen.

It is desirable to provide artificial pasturage. By proper planting, we may have nectar-secreting bloom all the season, and there will be no need of supplemental feeding. The Syrian bees seem to breed on all the same, whether there are flowers or not. It is probable that in the desert regions of Syria, natural selection has produced this race, well fortified against those famous famines which, of old, sent the patriarch to Egypt for bread and corn.

Local Convention Directory.

1883. Times and Place of Meeting.		
Aug. 14.—Cortland, N. Y. Union, at Cortland, N. Y.	M. C. Bean, Sec.	
Aug. 23.—S. W. Iowa, at Red Oak, Iowa.	R. C. Akin, Sec.	
Aug. 29.—Iowa Central, at Winterset Fair Grounds.	Z. G. Cooley, Sec. <i>Pro tem.</i>	
Aug. 29, 30.—Ky. State, at Louisville, Ky.	Dr. N. P. Allen, Sec., Smith's Grove, Ky.	
Sept. 4.—N. W. Iowa & S. W. Wis., at Ridot, Ill.	Jonathan Stewart, Sec.	
Sept. 12-14.—Tri-State, at Toledo, Ohio.	Dr. A. B. Mason, Sec., Wagon Works, O.	
Sept. 18-20.—North American, at Toronto, Ont.	A. I. Root, Sec., Medina, O.	
Oct. 9, 10.—Northern Mich. at Sheridan, Mich.	O. R. Goodno, Sec., Carson City, Mich.	
Oct. 17, 18.—Northwestern, at Chicago, Ill.	Thomas G. Newman, Sec.	
Oct.—Northern Ohio, at Norwalk, O.	S. F. Newman, Sec.	
Dec. 5-6, Michigan State, at Flint.	H. D. Cutting, Sec., Clinton, Mich.	

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

Posey County, Ind., Honey Show.

The twenty-fifth annual fair of the Posey County Agricultural Society, to be held at New Harmony, Ind., on Tuesday, Wednesday, Thursday and Friday, Sept. 11, 12, 13 and 14, 1883. The premiums for bees and honey are as follows :

Stand of Italian bees.....	\$2 00	\$1 00
Stand of native bees.....	1 00	50
Imported or Italian bred queen.....	1 00	50
20 pounds of honey, in comb	2 00	1 00
20 pounds honey, extracted	2 00	1 00
5 pounds beeswax.....	1 00	50
Bee hive.....	1 00	50
Display of apiary implements.....	3 00	1 50
Foundation for brood-chamber.....	1 00	50
Display of comb and extracted honey.....	2 00	1 00
5 pounds honey in comb...	1 00	50
5 pounds of honey, strained	1 00	50
Each exhibitor to arrange and take care of his own exhibit.		

We understand that Mr. J. M. Hyne, of Stewartsville, Ind., will make an exhibit, and we hope others will do so, and that the display will be very sweet and enticing.

☞ The new Postal Note will be obtainable in a few days at the Post-offices all over the country. Then any sum from one cent to five dollars can be sent in a letter, by obtaining a Postal Note, costing only 3 cents. After October 1, small sums can be easily sent to this office for 5 cents (3 cents for the Postal Note and 2 cents postage on the letter), and there will be no need of sending postage stamps in letters, which often get all stuck together by the damp weather, or being handled while perspiring.

Mailing Queens to Canada.

It has been the practice, for some time, for breeders to send queens by mail to Canada, and usually they are never heard from after, on account of their being unmailable. A breeder suggested, a few weeks ago, that the rate of 10 cents on samples of merchandise should be paid on queens, and to satisfy him we made a statement in the BEE JOURNAL to that effect. Now, we have an official letter from Joseph H. Blackfan, Esq., superintendent of foreign mails, on the matter. It was written in reply to a question from Mr. J. Rutherford, of Buffalo, N. Y., relative to sending queens by mail to Canada. Mr. Rutherford placed the letter on our desk, for the information of breeders generally. It is as follows :

WASHINGTON, D. C., July 17, 1883.—Sir: In reply to your letter of the 14th inst., relative to the refusal of the postmaster of Buffalo, N. Y., to receive, for mailing, a package containing queen bees addressed to Canada. I have to inform you that the transmission of articles of merchandise by mail between the United States and Canada is limited, by the postal arrangement in force between the two countries, to *bona fide trade patterns or samples* (specimens) not exceeding 8 ounces in weight; and that articles of merchandise, such as queen bees, sent for sale, in execution of an order, or as gifts, are not *bona fide samples*, and are not transmissible by mail from one country to the other.

If queen bees have been forwarded by mail between this country and Canada, except as *bona fide trade samples*, they have been so forwarded either through inadvertence, or in disregard and violation of the postal arrangement referred to.

I am, very respectfully, your obedient servant,

JOSEPH H. BLACKFAN.
Supt. of Foreign Mails.

Fairs.—To any one exhibiting at Fairs, we will send samples of the BEE JOURNAL and a colored Poster, to aid in getting up a club. The Premiums we offer will pay them for so doing. For a club of 8 subscribers to the Monthly BEE JOURNAL, or 4 Weekly, we will present Dzierzon's Rational Bee-Keeping, price \$2.00.

Honey Wanted!!—That sounds well. Two weeks ago an advertiser wanted some tons of extracted honey. This week an advertisement may be seen on page 412, calling for tons of comb honey. It can easily be obtained, and the honey this season is magnificent. That is universally conceded.

Dividing Colonies.

The Indiana Farmer remarks as follows on judiciously dividing colonies, and the effect of such dividing on honey gathering:

Artificial swarming or dividing is much preferable to that of natural swarming, when rightly understood; but by those who will not stop to think or learn the laws of instinct by which the bees are governed it cannot be successful. Only yesterday we were called upon to hear the grievances of a brother bee-keeper, who had lost almost the entire honey crop of this season, by his manner of dividing. The first principle, the key to success, is in keeping the old bees and the old queen in the new hive. That is where the work is to be done, and where the working bees and queen should be put. In making divisions not more than one frame of brood should be taken from the old hive; then move the old hive to the new location, leaving the new hive on the old stand, thus throwing all the working bees in the new hive where the work is to be done. The few bees left, and those hatching, will be able to do all the work necessary in the old hive until the advent of the new queen. Our friend mentioned above took exactly the opposite plan, and the old hives with all old bees commenced throwing off swarms as fast as the young queens hatched.

Nebraska Bee and Honey Show.

I desire to call the attention of the members of the Nebraska State Bee-Keepers' Association, and all others engaged in apiculture, to the liberal premiums offered by the Nebraska State Agricultural Society in Class VII., entitled "Bees, honey and aparian goods," and especially the premium of \$25 offered for the best colony of bees. The test of colonies will be net gain, and will be weighed and sealed Aug. 28, and weighed again Sept. 11. Each colony must be the progeny of the queen and colony on trial. All shipments in this department can be made to the Hon. B. E. B. Kennedy, superintendent of Class VII.; and the bees should be on the ground on or before Aug. 27. All other articles may be entered, up to noon of Sept. 10.

M. L. TRESTER,
Sec. N. B. K. Association.
Greenwood, Neb.

☞ The pamphlet, "Honey, as Food and Medicine," is in such demand, that we find it necessary to print them in still larger quantities, and can, therefore, still further reduce the price, as noted on page 411. Let them be scattered like "autumn leaves," and the result, we feel sure, will fully reward honey-producers for both the labor and the small expense.

Bees and Honey at Louisville.

Under this heading Mrs. L. Harrison, of Peoria, Ill., makes the following pertinent remarks:

It is comforting to know that in some parts of this country at least, if not in Illinois, the production of honey is worthy of a place among other industries. During 1881 and 1882, acting as vice-president of the North American Bee-Keepers' Society for this State, we interviewed the Board, requesting a building, or a separate apartment, for the honey exhibit, also that special premiums be allowed. The prominent bee-keepers of this State, with one exception, responded liberally to the application for special premiums, as did also the editor of the AMERICAN BEE JOURNAL, and those of other States. The request was denied, but a mollifying ointment given instead, by more than doubling the premiums ever before offered for this exhibit. As the present incumbent is a man endowed with a vote, greater things were expected; but in looking over the catalogue for the coming fair, it is apparent that the old ground is maintained, but no more territory is acquired. The great Southern Exposition at Louisville, Ky., (as we see by the Louisville Courier Journal of July 8), appreciates the importance of honey production. It says: "While ever day during the Exposition, from Aug. 1, until the closing, will be full of the most interesting features, certain days have been set apart for special attractions, which will be of direct interest to a large number of people. The programme, on the opening day, will be very elaborate. Business throughout the city will be suspended, and the Exposition will be opened by the President of the United States. On Tuesday, Aug. 28, begins a week known as 'Bee-Keepers' and Horticulturists' week.' Prizes will be awarded, and arrangements have been made by the Kentucky Bee Association to have many hives of many kinds of bees within the grounds." Horticulture and apiculture are Columbia's twins, united by inseparable ties, the severance of which would result in the death of both. Then let the devotees of each worship at the same shrine, regardless on the one hand of the grub in the core, as well as the sting in the narrative of the other.

We were rather astonished when Mr. J. Rutherford, of Buffalo, N. Y., called on us last week, and said he had started for the Louisville Exposition to make an exhibit of honey, but owing to having received the following letter, he had concluded not to go. The letter was in reply to an application for space, and is from the general manager, and reads as follows:

J. RUTHERFORD, Esq.—*Dear Sir:*
We cannot accept your exhibit unless you pay \$25 and 15 per cent. of the gross proceeds. J. M. WRIGHT.
Gen. Manager.

The Basswood or Linden.

The following parody, says the B. K. Magazine, was read at a national convention at Cleveland, Ohio, about ten years ago. The wonderful yields of honey from basswood (linden) taken for three successive years by J. W. Hosmer, Esq., of Janesville, Minn., has made his fame as a bee-master proverbial, and the recital of the facts by Mr. Hosmer himself, so worked upon the poetic feelings of Mr. Whittford, that he at once transformed a sublime poem, recounting the results of the conflict of mighty armies at war into that of a more numerous host busily engaged in pursuing the arts of peace:

On Linden when the sun was low
(All ready were the combs of snow)
The bees had a feast to show,
Of honey gathering rapidly.

'Twas noon—and yet the July sun
Was half bee-clouded by the run,
That stream'd to show what can be done
From Mr. Hoamer's spairy.

With tiny trumpets fast arrayed,
Each stinger sheathed her battle-blade,
Nor laggard natives long delayed,
But joined the merry revelry.

Then shook old heads with wonder riven,
As past the bees their teams were driven,
For swiftly through the light of heaven,
Fair flashed the bright Ligurians.

And wider yet their fame shall grow,
On Linden's sweets in combs of snow,
And greater yet shall be the show
Of honey gathered rapidly.

Well, Hosmer saw a splendid sight,
As forth he went to weigh that night,
Commanding John, his man, to light
The darkness of his spairy.

The gain that day, per single hive
Was two pounds less than fifty-five;
No wonder, then, bee-keepers thrive
Who understand their bees' teness.

The interest deepens. On, ye brave,
Whose work and glory 'tis to save
Our friends, the bees, from cruel grave
Beneath a sulphurous canopy.

Ah! few shall fail, and many meet
Success like this authentic feat,
When every flower beneath our feet
Shall feed some dainty epicure.

The National Convention.

The National Bee-Keepers' Association, will hold its Annual Convention in the City Hall and Council Chamber in the city of Toronto, on Tuesday, Wednesday and Thursday, the 18th, 19th and 20th days of September, during the second week of Canada's Great Fair. All the railroads in Canada will issue tickets during this week, good to return, up to Saturday night 22d, at single fare for the round trip. Special excursion rates will be arranged from various parts of the United States, of which due notice will be given. Those who intend being present may be kept posted on the latest excursion rates,

etc., by addressing me, and also that I may arrange hotel accommodation. Private lodgings will, if possible, be secured for those who desire it, and every effort will be made to make everybody comfortable. A grand meeting is anticipated.

D. A. JONES, President.

Honey and Beeswax Market.

OFFICE OF AMERICAN BEE JOURNAL, Monday, 10 a. m., Aug. 13, 1883.

The following are the latest quotations for honey and beeswax received up to this hour:

CINCINNATI.

HONEY—The honey harvest in this neighborhood is over, and was very satisfactory everywhere. Large crops were produced in my immediate neighborhood of bulk extracted and comb honey, and our Kentucky neighbors seem to belong to that favored class of mortals with whom there is no such word as failure. While we had very poor seasons for 5 years in succession, they harvested medium to good crops every time, and this season eclipses all previous ones with them, in quantity. Their quality cannot be excelled. We have had very large arrivals, and, our commission houses being well supplied, the market is overstocked at the present.

There was almost no demand for the last 3 or 4 weeks for our small packages—1 and 2 lb. jars. We sell for table use, and there is a very slow demand for such qualities as are used in barrels for manufacturing purposes. Honey being pushed on the market in such quantities, is sold at all prices, and our friends have the best show in the world for running prices down to a point from which they may be hard to recover.

Our prices, of late, for extracted honey, have been 75¢c. on arrival, and for choice comb honey 14@16c.

BEESWAX—Has been in fair supply, and sold at 30@32c. for good, on arrival. CHAS. F. MUTH.

NEW YORK.

HONEY—We take pleasure in quoting the following prices on honey, obtainable in our market: Fancy white clover, 1 lb. sections (no glass) 20@21c.; fancy white clover, 2 lb. sections (glassed) 16@17c.; fair white clover, 1 and 2 lb. sections (no glass) 10@11c.; ordinary buckwheat, 1 lb. sections (no glass) 15c.; fancy buckwheat, 2 lb. sections (glassed) 13@14c.; ordinary buckwheat, 1 and 1 lb. sections (glassed) 11@12c.; extracted clover honey in kegs or barrels 8@10c.; extracted buckwheat honey in kegs or barrels 7@8c.

BEESWAX—Prime yellow beeswax 31@32c.

H. K. & F. B. THURBER & CO.

CHICAGO.

HONEY—There has been a marked increase in sales this week of comb honey. New crop, prime 1 lb. frames (pure white) have sold at 20c. when in fancy cases, in a small way; good many sales at 15c. for some grade. 14@2 lb. frames (or prise package) when well-filled and white, 10@12c.; not quite so well filled, 15c.

Extracted is still slow, but late receipts have been riper, and there is more inquiry; 9@10c. for choice clover; dark and buckwheat, 7@8c.

BEESWAX—30@32c. for prime to pure yellow.

R. A. BURNETT, 161 South Water St.

SAN FRANCISCO.

HONEY—Gloomy accounts continue to be received from the Southern coast countries regarding the honey crop. In the region of Tulare there is a good yield. Some Tulare comb, crossed and mixed, was placed at 13@14c., and extracted of the crop of 1881 sold at 7@8c. White to extra white comb 10@12c.; dark to good 10@13c.; extracted, choice to extra white 7@8c.; dark and candied 6@7c.

BEESWAX—Wholesale, 27@29c.

STEARN & SMITH, 423 Front Street.

ST. LOUIS.

HONEY—New, in liberal offering, but little sold in quantity held higher: extracted or strained at 7@8c., and comb at 10c. Lots in fancy packages bring more in small way, while old and inferior sells less.

BEESWAX—Inactive and easy, at 27@28c.

W. T. ANDERSON & CO., 104 N. 3d Street.

CLEVELAND.

HONEY—New honey continues in good demand at 18@19c. for choice 1 lb. sections, and such are readily placed as fast as received; 2 lbs. not so active, at 16@18c. Second quality sells 14@17c. Extracted not in demand.

BEESWAX—None in Market.

A. C. KENDEL, 115 Ontario Street.

BOSTON.

We quote our market prices, as follows: White clover, one lb. combs 20@22c.; white clover, 2 lb. combs 18@20c.; extracted from 9@10c.

BEESWAX—Our supply is gone: we have none to quote.

CHOKER & BLAKE, 57 Chatham Street.



For the American Bee Journal.

Miscellaneous Experiments.

FRANK R. ROE.

1. Some are in doubt as to whether a swarm of bees will issue from a hive and go off without settling; but they undoubtedly will, sometimes, and that, too, oftener than some estimate, as it has been placed at not more than one in every hundred. For several years past, we have had a swarm or two (out of no more than 25 or 30) to "try it," and they succeeded pretty well this season, as we had a large swarm to come out, and I saw them issue; I watched for the queen, but did not get her, and they started off immediately. I succeeded in cutting off about one-third of them by throwing part of a "potato patch" at them, but the rest seemed determined to go, and I was just as determined to see where they were going; so I followed after them two miles, over fences, through flax, oats, barley, corn, woods, logs and brush, and had to ford a river besides, and then did not get them, but I found out that they did not intend to just go a little ways, and then settle before going to their new home. The entrance to the hive they came from is $\frac{3}{4}$ of an inch wide by 8 inches long. They had a pure Italian laying queen with them. Oh, yes! I must tell how long it took me to go the four miles—two there and two back—it took just three-quarters of an hour. The reason I came back in such a hurry was, I had left a swarm hanging on a limb in the bee-yard, and the bees I had cut off from the swarm that went to the woods, settled with them. I had only been back about a minute when they began to come off the cluster. I grabbed a basket, rushed up the ladder, which had been placed there before; shook what few remaining bees there were in it, then poured them in the hive they came from, and by throwing water at the remainder, while they were low, and clubs after they had got out of the reach of water, we succeeded in settling them again.

MORAL.—When a swarm tries to go off, it does not pay to give up until the last minute.

2. I had a queen to hatch, after which the cap to the cell sprung back, the bees then sealed it up and swarmed. There was no other cell, and no larvae in the hive.

3. After a queen had hatched from another cell, a worker bee was sealed up in it, and I had another case where a colony was building cells and sealed a worker up in one. Why did not those workers gnaw out, the same as a queen? They were both dead when I found them. If I had not peeped into the last mentioned cell, I would have inserted it in a nuclei, and waited for a queen to hatch.

4. When I am in doubt as to whether a cell is good, or do not know when it will hatch, I open it on the side with a sharp knife and look in, then seal it up again, and if a good job is done, the occupant will never know the difference, but a good job must be done, or the bees will tear the cell down. It can be done by warming a knife blade and running it over the place. I have taken queens out into my hands three or four days before their time to hatch, and then put them back and sealed them up, and they hatched as if they had never been disturbed.

5. I had two swarms issue at once and settle together, and as they settled on the body of a tree, I smoked them into a nail-keg and tied burlap over the top, so that I could bring them down. As dinner was ready, I set them in the shade, and when I came back, you may just guess the temperature was "up" in that nail-keg. The most of them sought refuge in the bottom, without finding it. When I poured them out they were wet all over with honey, and the honey also ran out of the keg in a stream. They had taken it from the hive before swarming, and when they began to get too hot, they disgorged it. There was scarcely any of them dead when I opened the keg, but they nearly all died soon after.

6. The reason why some swarms will sting, and others will not while swarming, is this: If the hive from which they issue is well filled with honey, they will fill themselves before coming out, and a bee, gorged with honey, will not sting from choice; while upon the other hand, if there is scarcely any honey in the hive when they swarm, they will not be filled, and are in perfect trim for stinging.

Jordan, Ind., July 25, 1883.

Read before the Texas Association.

Comb or Extracted Honey.

W. K. MARSHALL.

The question whether comb or extracted honey will pay best, is one that is attracting the attention of bee-keepers. To decide this question we must take all the surrounding circumstances into consideration. It is admitted that comb honey will sell higher than extracted. In a locality convenient to market, where the honey would not have to be transported any distance, or handled often, it might be doubtful which would pay best. It is admitted that bees will gather more extracted honey than comb; with comb foundation, however, the amount would not vary so much. Say that a colony would produce 100 pounds of comb honey, and that it would bring 20 cents per pound, making \$20, it would require the same colony to produce 200 pounds at 10 cents to bring the same amount.

The expense in producing the comb honey is greater than that of extracted. The sections and cases in which to pack it, would cost say 2 cents per pound. The difficulty in transporting comb honey any distance

to market, is so great that for those at a distance from market it amounts almost to a prohibition. I have never been able to transport comb honey any distance without having it broken and injured, so as materially effect the sale. I believe the only way to market comb honey safely is to go with it, and handle it yourself. Taking into consideration the additional expense of producing comb honey, and the difficulty of getting it to market, I am convinced that our true policy is to work for extracted honey. There may be exceptions to this rule; there may be localities where there is a demand for comb honey, and not much for extracted honey. The demand for extracted honey has been largely on the increase, and there has been more and more demand for it every year. I believe the demand for it will very soon be unlimited. The ease and comparative cheapness of sending it to market, and the fact that a colony will produce decidedly more honey, all combine to point us to extracted honey as our principal production. We can, for the present, find a market for all we will produce near home. Extracted honey, at present prices, will pay. Anything like a good colony ought to produce 100 pounds, which, at present prices, would be \$10. This, after deducting all expenses, ought to clear \$5. This is a moderate calculation, and I think could be realized with anything like good management.

Marshall, Texas.

For the American Bee Journal.

Italian and Hybrid Bees, etc.

S. A. SHUCK.

I have found bees in the timber in Ohio, Iowa, Kansas, Missouri and Illinois. Seven years ago last April, I purchased my first colony of bees for the purpose of studying and practicing modern apiculture. They were the so-called brown bees, in box hives. My first young queen mated with a hybrid drone, giving me bees that, one in every 25 or 50 showed the so-called second yellow band. Since then, I have had hybrids of every grade, from black and brown queens to Italian queens. I have owned black, brown and Italian bees, that at certain times in the season I could, without difficulty, handle without smoke, while many of the same bees, at other times, were intolerably vicious when disturbed. I have to-day, in my apiary, Italian bees, or those showing all the necessary markings in color, and that, too, without the window or "stuffing" tests; that with honey coming in, as it is, in abundance, can be called amiable and well behaved, but under destitute circumstances, it is almost out of the question to handle them without protection. I have others, Italians, that in all weather that is fit to handle bees at all, and from the point of starvation to honey in the greatest abundance, can be handled without smoke or protection.

In 1881, I had as fine hybrid bees as could have been found anywhere. They were excellent honey-gatherers and comb builders, produced in the same way that the "celebrated red clover strain," mentioned in the BEE JOURNAL not long since, was produced, by crossing the large Italians with the brown bees; that is, I guess, they came in this way, as they were the Italian queens, producing very large hybrid bees that were gentle and "boss" workers when there was plenty of white clover and basswood. The stripes on them were very dark, and much smaller than "kittens," and they did not have very long hair on their "hind legs," and when the extremely hot and dry weather set in, they "sat" in (their hives); while our Italians that did not appear to do near so well during clover and basswood, went far and near visiting every nook and corner in search of the scanty bloom; maintained their stores and gained a moderate supply for winter. These hybrids consumed their stores in brood-rearing, and for winter supplies had plenty of bees and empty combs. This was not all, shortly after the bloom failed, two of those hybrids swarmed, another two balled and killed their queens, but the Italians "toiled leisurely on."

In 1880, a friend and I purchased a selected imported queen, that I have mentioned before in the BEE JOURNAL. She was one of the most prolific queens I have ever seen, but her bees, which were gentle and excellent workers, spent nearly all their energies in the early part of the season, in brood-rearing. They were the most excessive builders of drone comb I ever saw, and while other queens in my apiary refused to lay drone eggs until their hives were crowded with bees, this queen would occupy every available cell.

For these reasons I discarded the imported stock. Besides the qualities of the imported stock, the bees were small and the drones very dark. I made the discovery in June, 1881, that I was losing ground by breeding from imported stock, and during the remainder of the season I disposed of all the daughters of the imported queen but three. During July and August, 1881, I reared several queens from the best home-bred stock I had, for the express purpose of producing my drones in 1882. In the spring of 1882, drone combs were excluded from the few colonies of hybrids and imported stock, and supplied in abundance to those from which we wanted drones. Our queens of 1882 were all reared from four home-bred queens. About 10 per cent. of our queens mated. The hybrids were all destroyed last fall. Two queens were superseded late in the fall, and the young queens both mated, one of which was destroyed this spring, so that, to-day, in 56 colonies, we have but one hybrid queen.

For two reasons I have given the above short history of my efforts in breeding for good bees.

1. To give the reader some knowledge of my experience with bees.
2. That a comparison of my experi-

ence with that of those whose experience appears from time to time in the BEE JOURNAL, and who are advocating hybrid bees may be had.

It is not my intention in this communication to discuss the merits or demerits in a definite way of either hybrids of Italians, but I wish to drop a few hints that may tend to encourage apiarists to think solidly for themselves, and not allow others to think too much for them; and to do this in a practical way, I will introduce a question here. If such a happy hybrid cross can be "hit upon" so easily as some of our bee-keeping friends are contending for, why is it that, with Italian bees in this country for more than 25 years, our most prominent breeders have never made the discovery? And, again, if such hybrids are so easily produced, why is it that younger apiarists like myself and hundreds of others who are readers of the BEE JOURNAL, cannot produce the same results, especially when we have the instructions how it is done repeated over and over again to us?

These hybrids have been represented as the "celebrated red-clover strain," and "the coming bee;" yet the reports in honey from those having this "celebrated" stock are no greater than the reports of novices. Italian bees from my apiary, numbering 100 colonies or more, have worked on red clover every season since I purchased them. I have not had time yet this season to visit the fields, but some of my neighbors told me yesterday that the yellow bees were working on the red clover "thickly." Hybrids from our bees, as would be expected, work largely on red clover, and I do not see why hybrids from any other good strain of Italians should not work on it.

One thing about red clover, but few apiarists seem to have realized, and that is its failure to secrete nectar. Our bees have worked on it best when the weather is warm both day and night, and making the most thrifty growth. Cool nights stop the secretion of its nectar, and there are but few plants that fail as quickly in dry hot weather as red clover.

Bryant, Ill., June 18, 1883.

For the American Bee Journal.

The Humidity Question.

S. CORNEIL.

The relation of the humidity of the atmosphere to the mortality of bees in winter, is referred to by the writer of "Bee Notes" in the *American Agriculturist* for January and February last, and quotations therefrom appear on page 68 of the present volume of the BEE JOURNAL. After very fairly summarizing some points in an article of mine on page 728 of the BEE JOURNAL for 1882, he says:

"The writer then asserts that in those winters most remarkable for bee mortality, the air has been very moist. We have the data whereby this can be determined, as in this place the condition of the atmosphere

as to moisture has been recorded daily for 19 years. We will compare the figures with the loss of bees, and give it to the readers of the *American Agriculturist* in February. If this be true, it shows well why sub-earth ventilation has been so successful, as by that method the air is kept from getting moist. The appearance of the bees that die of dysentery is also favorable to this view. They look dropsical, and seem fairly oozing with liquid excreta."

In his "Notes" for February, he says: "An examination of the condition of the atmosphere, as to the point of saturation, shows that there is not the least evidence in favor of the idea that excessive moisture was in any single case the cause of the great losses of bees. It also appears that in all the seasons of bad wintering, severe cold was experienced. It is further shown that when the cold occurred early in the winter, the mortality commenced at an early period. If late, the bees did not appear diseased till near the end of the winter."

I find no fault with the criticism, but the records examined must have been very different from those of the Signal Service in connection with the War Department at Washington. The Chief Signal Service Officer of the United States Army has, at the expense of a great deal of trouble and labor, very courteously supplied me with data from which I have compiled the accompanying table, an examination of which will show that at most points the humidity, as well as the cold in the winter of 1880-1, was excessive. The temperature for each month of that winter has been compared with the monthly average at each station since it was established, and so with regard to the relative humidity. In the columns for temperature the figures preceded by the minus sign indicate that the temperature was so many degrees colder than the average. Those having the plus sign signify the reverse. In the columns for humidity, the figures preceded by the plus sign indicate that the moisture was so much in excess of the average, dry air being represented by 0, and the point of saturation by 100. Those having the minus sign show that the air was so much drier than the average.

The way in which cold and moisture affect bees injuriously in winter, I conceive to be somewhat as follows. But first let me say that I think it is fully established that the temperature of a cluster of bees is not constant, like that of mammalia and birds, but varies, through a considerable range, with the temperature of the surrounding air, yet never falling as low, as in some of the lower orders of the cold-blooded animals, without producing death. It is also established that bees do not hibernate perfectly, but are at all times more or less active and consume food, and that this activity and consumption of food are increased by severe cold. Since severe cold reduces the temperature of the bees, the air permeating the cluster will also have a lower temperature, and will, in consequence, have

TABLE—Showing the average Temperature and Relative Humidity during the Winter Months, also the Monthly difference from the average, and the total difference for the winter months at the respective Stations during the winter of 1880-81.

NAME OF STATION.	DECEMBER, 1880.		JANUARY, 1881.		FEBRUARY, 1881.		MARCH, 1881.		WINTER OF 1880-81.	
	Average Temperature for Four Winter Months since Station was Established.	Difference of Temperature from Average.	Average Relative Humidity for Four Winter Months since Station was Established.	Difference of Relative Hu- midity from Average.	Average Temperature for Four Winter Months since Station was Established.	Difference of Temperature from Average.	Average Relative Humidity for Four Winter Months since Station was Established.	Difference of Relative Hu- midity from Average.	Average Temperature for Four Winter Months since Station was Established.	Difference of Temperature from Average.
Denver, Col....	32.5 51.7	-0.5 + 8.0	-1.0 + 7.3	-3.3 + 5.7	-1.8 + 10.7	-1.7 + 8.0	-1.7 + 8.0	-1.7 + 8.0	-1.7 + 8.0	-1.7 + 8.0
New London, Ct....	31.5 71.8	-3.6 - 0.2	-4.6 - 2.9	+0.8 + 0.8	+1.7 + 4.5	+1.8 + 0.5	+1.8 + 0.5	+1.8 + 0.5	+1.8 + 0.5	+1.8 + 0.5
Bismarck, Dak....	14.1 80.7	-10.3 + 5.4	-8.6 + 8.6	-3.4 + 6.4	+1.5 + 2.0	+5.2 + 5.6	+5.2 + 5.6	+5.2 + 5.6	+5.2 + 5.6	+5.2 + 5.6
Deadwood, Dak....	26.2 63.3	-4.8 - 4.8	-7.7 + 13.9	-2.5 + 12.2	-1.3 + 9.1	-3.8 + 7.6	-3.8 + 7.6	-3.8 + 7.6	-3.8 + 7.6	-3.8 + 7.6
Pembina, Dak....	6.4 49.0	-3.2 + 3.1	-5.8 - 0.7	+2.7 + 1.0	+5.2 + 3.3	-0.3 + 0.0	-0.3 + 0.0	-0.3 + 0.0	-0.3 + 0.0	-0.3 + 0.0
Yankton, Dak....	22.2 67.3	-6.2 + 1.6	-10.1 + 4.4	-7.5 + 8.1	-7.3 + 1.5	-7.8 + 3.9	-7.8 + 3.9	-7.8 + 3.9	-7.8 + 3.9	-7.8 + 3.9
Cairo, Ill....	40.8 72.4	-5.5 + 0.7	-7.1 - 0.5	-3.3 + 1.9	-2.5 + 1.5	-4.6 + 0.1	-4.6 + 0.1	-4.6 + 0.1	-4.6 + 0.1	-4.6 + 0.1
Champaign, Ill....	30.8 69.8	-7.0 + 4.8	-4.8 - 3.1	-6.7 - 0.7	-4.2 + 1.0	-5.7 + 0.5	-5.7 + 0.5	-5.7 + 0.5	-5.7 + 0.5	-5.7 + 0.5
Chicago, Ill....	30.0 73.7	-5.7 + 3.8	-6.9 - 6.3	-4.9 + 1.2	-3.3 + 3.2	-5.2 + 1.5	-5.2 + 1.5	-5.2 + 1.5	-5.2 + 1.5	-5.2 + 1.5
Ind'napolis, Ind....	34.4 71.6	-8.4 + 1.6	-6.8 - 0.6	-4.1 + 4.1	-3.8 + 5.4	-8.8 + 2.1	-8.8 + 2.1	-8.8 + 2.1	-8.8 + 2.1	-8.8 + 2.1
DesMoines, Ioa....	28.0 71.0	-4.0 + 1.2	-9.9 - 0.3	-8.0 + 7.3	-7.0 + 6.8	-7.2 + 3.7	-7.2 + 3.7	-7.2 + 3.7	-7.2 + 3.7	-7.2 + 3.7
Dubuque, Iowa....	26.5 69.6	-7.4 + 4.8	-8.2 + 3.7	-5.9 + 5.3	-3.3 + 4.1	-6.2 + 4.5	-6.2 + 4.5	-6.2 + 4.5	-6.2 + 4.5	-6.2 + 4.5
Keokuk, Iowa....	31.1 72.2	-4.7 + 2.6	-7.3 - 2.5	-6.5 + 4.6	-4.5 + 3.8	-5.7 + 0.8	-5.7 + 0.8	-5.7 + 0.8	-5.7 + 0.8	-5.7 + 0.8
Dodge City, Kas....	33.9 59.6	-6.8 + 0.2	-7.2 - 1.8	-8.0 + 7.5	-2.5 + 2.7	-6.1 + 2.0	-6.1 + 2.0	-6.1 + 2.0	-6.1 + 2.0	-6.1 + 2.0
Leaven'wth, Ks....	32.9 67.5	-4.7 + 0.5	-6.6 + 0.3	-8.1 + 8.3	-4.0 + 3.5	-6.0 + 2.9	-6.0 + 2.9	-6.0 + 2.9	-6.0 + 2.9	-6.0 + 2.9
Eastport, Me....	24.2 73.6	-0.8 + 2.1	-2.7 - 3.0	-1.0 + 1.0	-1.0 + 0.1	-0.5 + 1.5	-0.5 + 1.5	-0.5 + 1.5	-0.5 + 1.5	-0.5 + 1.5
Portland, Me....	28.0 69.9	-2.1 + 1.5	-1.3 + 3.2	-2.5 + 1.1	-5.1 + 2.5	+1.0 + 0.3	+1.0 + 0.3	+1.0 + 0.3	+1.0 + 0.3	+1.0 + 0.3
Boston, Mass....	29.7 70.8	-4.0 + 2.6	-4.6 + 5.2	-0.3 + 3.0	-1.9 + 5.6	-1.8 + 0.2	-1.8 + 0.2	-1.8 + 0.2	-1.8 + 0.2	-1.8 + 0.2
Spr'field, Mass....	30.0 68.6	-4.7 + 7.0	-5.6 + 3.7	-1.7 + 3.0	-1.1 + 2.9	-2.7 + 2.7	-2.7 + 2.7	-2.7 + 2.7	-2.7 + 2.7	-2.7 + 2.7
Detroit, Mich....	28.4 76.4	-5.8 + 0.7	-7.3 + 0.6	-0.7 + 4.0	-0.9 + 3.5	-3.2 + 1.8	-3.2 + 1.8	-3.2 + 1.8	-3.2 + 1.8	-3.2 + 1.8
Escanaba, Mich....	19.2 75.8	-3.6 + 1.3	-8.0 + 4.2	-4.3 + 5.1	-1.0 + 5.6	-8.8 + 4.1	-8.8 + 4.1	-8.8 + 4.1	-8.8 + 4.1	-8.8 + 4.1
Gr Haven, Mich....	28.3 79.7	-4.4 + 1.5	-6.3 + 1.7	-3.0 + 3.0	-0.9 + 3.0	-3.6 + 1.5	-3.6 + 1.5	-3.6 + 1.5	-3.6 + 1.5	-3.6 + 1.5
Marquette, Mich....	21.2 69.9	-3.3 + 2.2	-7.9 + 1.4	-5.5 + 3.7	-0.4 + 3.6	-4.2 + 0.2	-4.2 + 0.2	-4.2 + 0.2	-4.2 + 0.2	-4.2 + 0.2
Pr. Huron, Mich....	26.2 80.7	-5.2 + 4.8	-6.8 + 1.7	-3.2 + 1.2	-1.4 + 4.8	-4.1 + 0.1	-4.1 + 0.1	-4.1 + 0.1	-4.1 + 0.1	-4.1 + 0.1
Duluth, Minn....	18.1 76.5	-4.3 + 9.0	-7.3 + 2.1	-2.7 + 5.0	-3.0 + 2.8	-5.7 + 5.7	-5.7 + 5.7	-5.7 + 5.7	-5.7 + 5.7	-5.7 + 5.7
Mooreh'd, Minn....	10.7 82.0	-4.2 + 13.7	-5.1 + 7.1	-0.3 + 8.6	-3.2 + 9.8	-3.2 + 9.8	-3.2 + 9.8	-3.2 + 9.8	-3.2 + 9.8
St. Paul, Minn....	20.6 72.9	-5.0 + 1.0	-7.4 + 0.1	-2.6 + 2.1	-1.4 + 0.7	-3.4 + 0.4	-3.4 + 0.4	-3.4 + 0.4	-3.4 + 0.4	-3.4 + 0.4
F Assimb. Mont....	20.9 60.5	-13.9 + 8.5	-5.6 + 4.8	-4.0 + 8.3	-5.4 + 3.5	-4.5 + 6.3	-4.5 + 6.3	-4.5 + 6.3	-4.5 + 6.3	-4.5 + 6.3
F. Benton, Mont....	20.9 68.8	-12.6 + 7.2	-3.7 + 3.1	-0.2 + 4.9	-13.3 + 5.6	-2.4 + 2.4	-2.4 + 2.4	-2.4 + 2.4	-2.4 + 2.4	-2.4 + 2.4
Ft. Keogh, Mont....	20.9 68.8	-7.4 + 7.9	-11.3 + 7.4	-1.7 + 3.9	-4.5 + 1.9	-3.9 + 5.3	-3.9 + 5.3	-3.9 + 5.3	-3.9 + 5.3	-3.9 + 5.3
Helena, N. Mont....	24.4 64.5	-13.4 + 18.7	-5.1 + 9.8	+0.7 + 0.6	-4.2 + 7.2	-3.4 + 0.6	-3.4 + 0.6	-3.4 + 0.6	-3.4 + 0.6	-3.4 + 0.6
N. Platte, Neb....	27.8 64.3	-7.0 + 2.0	-7.4 + 4.0	-6.9 + 13.2	-1.8 + 12.0	-5.8 + 7.9	-5.8 + 7.9	-5.8 + 7.9	-5.8 + 7.9	-5.8 + 7.9
Omaha, Neb....	27.7 70.1	-6.5 + 3.4	-10.2 + 3.8	-10.2 + 10.7	-8.2 + 11.0	-8.8 + 7.2	-8.8 + 7.2	-8.8 + 7.2	-8.8 + 7.2	-8.8 + 7.2
Albany, N. Y....	27.2 69.9	-3.1 + 3.6	-3.3 + 0.9	-2.4 + 3.7	-3.7 + 3.9	-2.2 + 0.0	-2.2 + 0.0	-2.2 + 0.0	-2.2 + 0.0	-2.2 + 0.0
Buffalo, N. Y....	27.7 77.8	-6.4 + 0.5	-6.8 + 1.0	-3.7 + 1.1	-1.9 + 4.9	-4.7 + 1.9	-4.7 + 1.9	-4.7 + 1.9	-4.7 + 1.9	-4.7 + 1.9
New York, N. Y....	32.9 75.8	-5.3 + 0.4	-4.5 + 1.8	-1.9 + 3.4	-2.4 + 3.1	-2.9 + 2.1	-2.9 + 2.1	-2.9 + 2.1	-2.9 + 2.1	-2.9 + 2.1
Oswego, N. Y....	28.8 72.7	-4.5 + 4.0	-5.3 + 1.3	-1.8 + 2.7	-0.8 + 3.8	-2.7 + 3.0	-2.7 + 3.0	-2.7 + 3.0	-2.7 + 3.0	-2.7 + 3.0
Cincinnati, O....	38.2 67.6	-5.9 + 3.6	-4.7 + 2.1	-1.6 + 2.3	-2.3 + 4.5	-3.6 + 0.2	-3.6 + 0.2	-3.6 + 0.2	-3.6 + 0.2	-3.6 + 0.2
Cleveland, O....	30.0 76.6	-6.8 + 1.7	-6.8 + 2.7	-3.2 + 5.0	-2.7 + 11.5	-4.9 + 5.2	-4.9 + 5.2	-4.9 + 5.2	-4.9 + 5.2	-4.9 + 5.2
Columbus, O....	34.6 70.2	-7.0 + 1.7	-7.1 + 1.2	-5.3 + 4.2	-4.0 + 6.7	-5.8 + 3.5	-5.8 + 3.5	-5.8 + 3.5	-5.8 + 3.5	-5.8 + 3.5
Erie, Pa....	31.0 77.0	-7.1 + 1.4	-5.9 + 5.5	-3.3 + 1.8	-2.2 + 5.1	-4.6 + 3.4	-4.6 + 3.4	-4.6 + 3.4	-4.6 + 3.4	-4.6 + 3.4
Philadelphia, Pa....	34.8 72.5	-5.7 + 0.8	-4.8 + 0.1	-3.2 + 4.1	-1.2 + 4.3	-3.8 + 2.2	-3.8 + 2.2	-3.8 + 2.2	-3.8 + 2.2	-3.8 + 2.2
Pittsburg, Pa....	33.8 72.6	-5.9 + 2.6	-3.1 + 4.1	-2.8 + 0.8	-1.8 + 3.3	-3.4 + 2.7	-3.4 + 2.7	-3.4 + 2.7	-3.4 + 2.7	-3.4 + 2.7
Newport, R. I....	33.3 74.9	-4.4 + 2.5	-4.6 + 0.5	-2.5 + 3.0	-0.5 + 4.1	-2.7 + 2.3	-2.7 + 2.3	-2.7 + 2.3	-2.7 + 2.3	-2.7 + 2.3
Burlington, Vt....	24.6 72.1	-4.8 + 1.8	-5.9 + 2.1	-0.1 + 1.3	-2.1 + 1.8	-2.2 + 2.2	-2.2 + 2.2	-2.2 + 2.2	-2.2 + 2.2	-2.2 + 2.2
La Crosse, Wis....	24.1 70.6	-6.7 + 3.7	-8.4 + 4.6	-5.0 + 4.0	-1.9 + 7.2	-5.5 + 4.9	-5.5 + 4.9	-5.5 + 4.9	-5.5 + 4.9	-5.5 + 4.9
Madison, Wis....	25.7 73.4	-7.5 + 0.8	-9.8 + 0.2	-6.7 + 3.6	-5.1 + 2.7	-7.2 + 1.4	-7.2 + 1.4	-7.2 + 1.4	-7.2 + 1.4	-7.2 + 1.4
Milwaukee, Wis....	25.5 77.8	-5.2 + 0.6	-5.6 + 1.3	-2.2 + 5.8	-1.3 + 6.3	-3.6 + 3.6	-3.6 + 3.6	-3.6 + 3.6	-3.6 + 3.6	-3.6 + 3.6
Cheyenne, Wyo....	28.7 48.9	+0.5 + 1.3	-1.8 + 8.0	-0.3 + 2.3	-0.3 + 6.7	-0.3 + 4.6	-0.3 + 4.6	-0.3 + 4.6	-0.3 + 4.6	-0.3 + 4.6
Toronto, Can....	25.2 80.5	-4.3 + 5.0	-6.3 + 2.0	-2.8 + 4.0	-0.9 + 2.0	-3.2 + 3.3	-3.2 + 3.3	-3.2 + 3.3	-3.2 + 3.3	-3.2 + 3.3

less capacity for evaporating the water from the bees, and may be incapable of taking up the larger quantity produced in consequence of the low temperature, unless the air is undergoing constant change by proper ventilation. This evil will be very seriously increased, if the external air is already overloaded with vapor, for the more humid the air the less its capacity for absorbing more water. But a moist external air increases the trouble in another way. We all know that the cold of a damp day is more felt than that of a colder dry

one, because the humid air, being a better conductor, the heat of the body is carried off more rapidly, and so with regard to the bees. A damp external atmosphere tends to reduce their temperature still lower, and aggravates the evil first mentioned.

If these views are correct, the losses in 1880-81, in some parts of the country (the eastern part of the State of Maine for instance), should not have been much greater than usual, because there the table shows the temperature and humidity were about normal. Dr. Tinker collected more

information regarding the losses of bees and the attendant circumstances that season than any other private bee-keeper. Probably his reports would show the localities in which the losses were least, and those in which they were greatest. It would be interesting to know if a comparison of his reports with the table will show that the localities in which the losses were heaviest correspond with those in which the humidity was greatest. If the reports collected by the editor of the *BEE JOURNAL* were classified, as to the humidity of different localities, I dare say they would throw light on this branch of the subject.

In connection with the foregoing table, I invite attention to the statement that "in winters, when the cold occurred early, the mortality commenced at an early period; if late, the bees did not appear diseased till near the end of the winter." In this part of the country it was just the reverse in 1880-81, and I would almost venture to say that the reports will show that such was the case generally. The table shows that the cold was most intense in December and January, and that it moderated in February and March; but that, as it did so, the humidity increased to excess in the two latter months. On the 6th of March, I had 4 colonies dead, out of 44 packed in chaff, on Mr. Townley's plan. Before the swarming season came around, I had only 13 good ones and 6 nuclei left. The report of Mr. Geo. Garlick (page 158, *BEE JOURNAL* for 1881), whose apiary is located about 50 miles east of this place, very fairly shows how the bees died in this part of Canada. On Feb. 1, he had 137 alive, out of 140, on their summer stands, some being packed in sawdust. On March 1, he had 88 alive; on the 6th, 62; on the 15th, 55; on the 1st of April, 42; on the 10th, 12, and on the 6th of May, only 7 were left of the whole lot.

From an inspection of the table one would think it should not be much of a trick to winter bees in some localities, the neighborhood of Cincinnati for example. The ventilation and protection sufficient for hives in that locality would be quite inadequate for the climate of Port Huron or Toronto; the average winter temperature at these points being about 13° colder, and the average relative humidity being over 80°, while at Cincinnati it is less than 68°.

Many other interesting points might be considered, but I trust the table will assist the readers of the BEE JOURNAL to form opinions for themselves, as to the two most important elements of the climate in which they have to winter their bees, and whether they are most injured by severe cold or by cold and excessive moisture combined; the former being present in the early part of the winter of 1880-81, and the latter occurring towards its close.

Lindsay, Ont., June 22, 1883.

For the American Bee Journal.

Two Queens in a Hive.

W. H. SHIRLEY.

There seems to be quite a number of reports of two queens in one hive, this season. I have instance two queens where the bees were superseding a queen. In the following letter which I have received from J. O. Shearman, he mentions having two queens in a hive:

Our bees seem to not be doing much since the nights turned cool, though button willow is just opening, it does not seem to yield much. I guess it is because the water is so high yet, as to flood it. Bees go to it a little, and then run on red clover the rest of the time. I had a case of two queens in a hive. I saw them both on the 2d of August, on one comb, and not excited at all, and did not seem to notice each other. I had clipped the old queen's wing, to avoid swarming, and I guess I slashed her pretty severely, as I did it with my knife, not having the scissors handy. I think they undertook to supersede her, as I found queen-cells cut up on other combs, or she might have swarmed and then crawled back. She appeared to be "slimmed up," as we used to call it, same as for swarming. The young queen was the largest and brightest colored. What was the cause of your two queens in a hive? Do you know? I left both of mine in, to see how they made out, as they both seemed quiet. How would it do to answer in the BEE JOURNAL the cause of yours? If you do, you might send this in too. I look for a fall run of honey yet, as feed of all sorts is fresh, though the ground is fast getting dry.

J. O. SHEARMAN.
New Richmond, Mich.

The case in the BEE JOURNAL, page 373, was of a different kind. I had introduced a young queen, after killing the old one in the hive. Quite a number of young queens get lost on their bridal trip, from nuclei, on an average say 10 per cent. of them. Now, I think it was one of these queens that dropped down by this hive, where I had introduced one some days before, and was received by the bees all right.

I have found three young queens balled in front of the hives, this season, and in swarming time I frequently find one and two young queens that the swarm had caught when on the wing.

Glenwood, Mich., Aug. 8, 1883.

For the American Bee Journal.
Instinct Compared with Reason.

W. H. STEWART.

Volumes on volumes have been written concerning the organization, powers and doings of the honey-bee, without in any way exhausting the subject. The field is unbounded, and ever fruitful. The song of the grove, the aroma of the flowers, and the industry of the bee, have ever been favorite themes with the poet. Dull indeed must be that class of persons who experience no pleasing and inspiring emotions, who are able to read no new and useful lessons from the many facts of pleasing interest that shine out like so many golden threads, so beautifully woven, all through and through the warp and woof of plant and insect life, and more especially that of bees and flowers. How wonderful each new phenomenon manifested on every hand as we contemplate the ample field—in the co-relation and inseparable interblending of the vegetable and animal kingdoms; their mutual dependence on each other for the power of reproduction, etc. The new born honey-bee, inexperienced and independent of all instruction, reads on the page of instinct the truth that it is altogether dependent upon vegetable fruitfulness for the only food that can sustain its life.

The plant also, through all its manifold changes from earliest germination in spring-time, feels the delicate touch of the vibrating chord of inter-dependence; and guided by the same law that gave birth and direction to instinct, unfolds its form, ever taking on new and more complex conditions, slowly, yet surely, concentrating its own best life-juices in the forming of the pure nectar to be negotiated with the yet unborn honey bee for a precious morsel of fertilizing pollen.

As we muse, blending our life with these truths, our soul drinks at the fountain of harmony that vibrates along this aeolian chord that whispers instinct to the little speck of animate life at its one end, and law to the unfolding plant at the other.

Could we draw aside the mystic curtain that seems to divide between the human and insect planes of life, we should, perhaps, learn that the common Creator had in no way been partial in the bestowment of blessings on his creatures. We would be likely to discover that where one power had been withheld, another, of more vital importance to the individual, had been given.

Man may boast of his reasoning powers, and claim to be the "lord of creation," and to be the rightful possessor of the summit plane of animated life. How few who engage in mechanics or commerce become successful masters even after the labor and experience of many years; yet the little honey-bee emerges from its cradle a master mechanic, able also to move off in the right direction to do its part in obtaining a livelihood for itself and its fellows.

Not only so, but the bee may rightfully claim a more striking superiority over man. At its birth the bee is endowed with the power to step upon the plane of equality with its fellows; to hold and enjoy every right that can in any way enhance the happiness of itself and the colony; able and willing, from birth to old age, to do its part in the support of a regularly-organized government, that administers all needful rights to all concerned. A government that gives full satisfaction through thousands of generations without the necessity of the repeal or modification of a single rule or law.

Should not reason hide its blushing face when it remembers that after thousands of generations of men have labored to discover and frame a government that would give satisfaction to all its members, they have failed to make one rule, or enact one law against which some one or more of their fellows would not rebel.

"Raise reason o'er instinct as you can,
In this 'tis God directs; in that 'tis man."

Could bees impart their knowledge by the use of human language, would we not do well to sit in quiet silence and learn wisdom as spoken from an instinctive standpoint? It has been said that "actions speak louder than words;" be this as it may, "one truth is clear." The careful observer may glean many fine and important lessons from the works, habits and unfoldings of the lower forms of life.

O, for the power to penetrate.
Or lift the mystic veil,
And scan each creature's full estate
As each their mission fill.

Granite, stratum, or verdant plane—
Insects, beasts, birds, man—
Trace along the unbroken chain—
My mission in the plan.

To best improve what me is lent,
Nor covet what's withheld;
Act well my part and be content,
In life's most fruitful field.

Orion, Wis., Aug. 2, 1883.

For the American Bee Journal.

Ohio State Bee-Keepers' Convention.

The Ohio State Bee-Keepers' Association will hold a convention during State Fair week, commencing on Tuesday evening. The following programme has been arranged:

Tuesday Evening, Sept. 4.—1. Greetings and organization. 2. Annual report of Secretary and Treasurer. 3. Election of officers. 4. Annual address of the President. 5. General discussion of topics presented by members present.

Wednesday Evening, Sept. 5.—1. Address by S. D. Riegel on improvement in bee-culture as deduced from the season's operations, followed by discussion on the same. 2. Question drawer and discussion on topics presented.

Thursday Evening, Sept. 6.—1. Address or general talk by Vice-President Aaron Benedict, on the rearing and management of queens, followed by discussions of the same. 2. Question drawer and discussion on topics presented.

Conference meetings of bee-keepers and those interested will also be held

each afternoon at 1 o'clock in Apiarian Hall, on Fair grounds.

The place of meeting of the convention to be decided at time of the Fair, probably in the upper room of Apiarian Hall.

Everybody who is at all interested in bees is invited to meet with the Association, and all who can bring articles for exhibition, as efforts are being made to render this department a grand success.

The State Board of Agriculture has furnished the bee-keepers a separate hall for their exhibits at the State Fair, with an upper room in which to hold meetings. Ample room will be furnished for all exhibits.

DR. H. BESSIE, Pres.

D. SPEAR, Sec.

AARON BENEDICT, Sup't. Apiary Hall.

For the American Bee Journal.

Marketing, and Price of Honey.

JAMES HEDDON.

As our editor has told us in a late number of the BEE JOURNAL, "supply and demand" is the great cause of fluctuations in prices of all commodities, yet sometimes immediate ups and downs in prices are caused by sentiments flowing across the minds of producers; sometimes almost creating a panic in prices.

It is my opinion, at this time, that bee-keepers over the country generally have too much of an idea that our present crop is going to be enormous, and sell at a low figure. I got frightened myself, and put 200 pounds of comb honey on our market in the shape of an out and out sale, 2 cents lower than I need to have done. There is \$4 charged up to scare.

There is a considerable quantity of honey produced about here this season, notwithstanding the fact that we have not an average crop, because of the improvements in methods and fixtures. The crop coming in rather late, a good many country producers held off from putting honey on this market from the fact that so much was produced here in my apiaries. The merchants have held up the old-time prices, which, from all indications, will carry through the year. Notwithstanding I have been very busy with many other duties besides marketing honey, duties that most other producers do not have, I have thought it a duty, and have taken upon myself the burden of manufacturing honey stands. These I made with sloping shelves for jars of extracted honey, and case in top with glass front, and back door for comb honey. I have introduced, and am keeping supplied one of these in each of the principle groceries in our little city. By this means I hope to market 3 times as much honey at home as I did last year, even at the same price.

Two things make honey sell rapidly. First, putting up and keeping it in attractive shape and place; and second, reducing the price. Between the two I believe that the first is the best card for the producer, and is far less expensive. Let all honey pro-

ducers do this as far as possible. Let them also be in no great haste to market the crop. Honey sells best in cool weather, and is by no means a perishable article, and even grows of better quality if properly kept.

While there may be honey enough to glut the market of a month, it is my opinion that there is not enough to overstock the markets of the year. All we need is to act as a body, and put our honey into market along as demanded, at a reasonable price, instead of panic-stricken like, rushing it all in at once to catch what we believe to be the highest price, which will almost surely turn out to be the lowest price for us.

The best guide I can think of to be governed by as to when to put honey on the market, is to market it only when it seems to be called for at reasonable prices. This, of course, is owing to quality of honey and location. I will give you my own individual standard. We live in a pretty good honey-producing locality. We raise more honey than can be consumed at home. Some of it must be shipped to the great cities of this and other countries.

When I realize 18 cents per pound (it then sells at 20 cents retail) for a nice article of comb honey in one-pound sections, or 25 cents per pound in half-pound sections, and 15 and 20 cents per pound for colored fall honey in one and half-pound sections, and 12½ and 10 cents per pound for extrated, early and late, I am ready to supply such demand, not otherwise.

Just a word regarding half-pound sections. I intend, when the season is closed, to give the benefit of the experiments my class and myself have made regarding half-pound sections. How we like them, how the bees like them, and how my customers like them; also regarding honey boards, cases, broad frames, and various other things. But will say just here that the half-pound sections seem to be a great favorite in the markets around about our little country towns.

Dowagiac, Mich., Aug. 8, 1883.

For the American Bee Journal.

Excellencies of the German Bee.

A. W. OSBURN.

While the praise of the different races of bees, the Italians, the Holy Lands, Cyprians and others is being sounded far and wide; and while the best talent of our country is being engaged to bring more prominently before the public the superior qualities of the above named races, there are but few that have the boldness to come forward and advocate the good traits of character of the German bee (not the black). I know that one who has the independence to advocate the good qualities of the German race of bees, must expect to call down upon his head the scorn, the disapprobation and disgust of the great mass of bee-keepers of to-day.

Let us go carefully over the ground and see if the German bees have not some traits, that the honorable bee-

keeper is bound to respect. In the first place they excel as comb builders; they excel as rapid workers to draw out foundation; they excel as pioneers to strike out from the brood-chamber (and out of the queen's way) to store their honey; the queens thus having no honey to bother them, can fill their combs from top to bottom, and from end to end; they excel in keeping their hives full of workers to gather the crop; all other conditions being favorable, they excel as non-swarmers, when you give them plenty of room.

While I would not wish to be understood that I think the German bee possesses all the good traits to be desired in "the coming bee," yet I would wish them to have credit for what good there is in them; and that their good qualities shall not be ignored when looking around for material to make up that long-looked-for *Apis-Americanica*. I am satisfied, from my own experience, that the crossing of the different races makes better business-bees than either bred pure. It is our intention to try the experiment of mixing the best strains of Italians, Germans and Holy Lands together, and see what the coming bee from these three races will be. I have no fear of the result; there is not one of the three but what have excellent qualities, but the fine point is to combine them all in one.

I am aware that some of our most successful apiarists are prejudiced against the German and Holy Land bees, but let them dispute the good traits I have mentioned in the Germans, if they can, or the prolificness, fleetness of wing, and ambition of the Holy Lands. For me to advocate the good qualities of the Italians would be for me to take up your valuable room for nothing, for they are too long and favorably known; but for me to say that they possess all the requisites of what we will wish "the coming bee" to possess, would be as foolish as the other.

Water Valley, N. Y.

For the American Bee Journal.

Finding the Queen.

F. M. CHENNEY.

My method of finding the queen in populous colonies of black bees is as follows: Early in the morning, I go to the colony containing the queen I wish to supersede, and divide it, placing half the combs and bees into an empty hive. In a few minutes one of the hives will show queenlessness by the bees running over the front of the hive. I place this hive on the stand, and take the other, which contains the queen, several rods away. Near night this hive will be so thinned of bees that the queen can be easily found, and after obtained, the bees can be returned. I concluded one swarm was queenless, but by dividing I found it was not, and captured the queen which had ceased to lay, although she was only one year old, and had been prolific previous to this.

South Sutton, N. H., Aug. 1, 1883.

What and How.

ANSWERS BY

James Heddon, Dowagiac, Mich.

Getting Bees Out of the Cases.

Will Mr. Heddon please tell us how he gets the bees from the cases when he takes them from the hive?

SAMUEL FISH.

Milan, O., July 31, 1883.

ANSWER.—Our method of getting bees out of sections is as follows: Now, you will remember our sections all have open tops, and the opening is $\frac{3}{8}$ of an inch wide. When we uncover the case before removing, we blow the smoke between the sections, by passing the nozzle of the smoker across each row, as we press the bellows. Four repetitions of it, in rapid succession, starts nearly every bee downward. Inclined to fill himself with honey, and there being none uncapped above, he immediately starts below. We now blow with our mouth a lively cool blast across the ranges, the same as we did with the smoker. This drives them more than smoke, after being smoked. Now, as you lift your case, there should not be more than 40 to 100 bees left in it. Next we remove the case to our 6 foot square summer house; the upper half of which is wire cloth all around, and two of its sides are doors. In this house we pile up the cases crosswise to each other. The bees immediately go on to the screen, which screen is double, and prevents the feeding of outside robbers through the net work. Now you can remove the cases to the honey house free from bees. Throw open the doors and the bees return to their hives. In place of such a screen house, a revolving window, or similar device in any room, may be used.

Comb Foundation for Surplus Honey.

MR. HEDDON:—In the BEE JOURNAL of July 25, replying to W. B. Dresser, of Michigan, you say: "I use full size pieces of foundation," etc. You were referring to section boxes. Do folks generally eat comb honey made on comb foundation? Somehow I was under the impression that it is not very clean or wholesome, and was only intended for brood and extracted honey. I think I should bite it with my eyes shut, and not smack my lips much. But then, it may be I am prejudiced just a little, and not in the spirit of advanced and enlightened bee-culture. I use foundation, but in the brood-chamber, with a very small bit in the honey boxes for a starter, not enough, you know, to

hurt; and may be you will say, not enough to do any good, either. Please say something about this article (foundation) as to its purity as food, etc.

W. P. HANCOCK.

Salado, Texas, July 30, 1883.

ANSWER.—My rule in selling any commodity to my brother man, is the one laid down by that great and loving reformer, Christ. "Do unto others as ye would that they should do unto you." Almost all will admit that it is our duty to do so; but all do not see the fact that we likewise owe a duty to ourselves, and it is a second duty, to stop right there, in very many instances.

For three years, and at a time before manufacturers were making a very delicate foundation for surplus combs, or, at least, before I obtained any, I used full sheets of foundation in all my sections. No person in this county, except myself, knew there was such a thing as comb foundation. I sold this honey in my home market readily, and only one person during that three years ever made a remark regarding it, that came to my ears. Getting hold of an unfortunate piece, one man observed: "That honey I got of you seemed to have too tough a comb." Large numbers spoke the praises of my comb honey. So much for the effect upon the trade.

Now, in regard to the healthfulness of wax. So far as I can learn, nothing is more wholesome to take into the stomach than honey comb. Being perfectly indigestible by the human stomach, no effort is made to digest it. In eating warm biscuit, the particles of comb intermingle all through the dough in such a manner as to give the gastric juice of the stomach a better chance to do its work. Particles of wax are smooth, not harsh or irritating to the stomach or intestines, and the chemical effects are said to be slightly stimulating.

Now, as regards cleanliness of the foundation. Of course to persons who do not know what they are eating, if there are no ill effects, no harm is done. To those who do, and who are prejudiced against it, as Mr. H. may be, allow me to say, let us reason together. Trusting that the reader knows chemically of what impurities consist, we will pass by, asserting that high degrees of heat destroy all impurities. The degree of heat which is brought to bear, when rendering wax, destroys all impurities that may be lurking about the combs melted. I consider that when properly ren-

dered, beeswax is as pure and wholesome for chewing gum as any nugget found upon the spruce tree.

Since I have been making comb foundation, and receiving students, I have had a large number of assistants in the wax room, and I have never had one but was more or less of the time chewing scraps of wax. Neither have I ever had one, who has been with the honey, from the cake of beeswax to the delicate white combs upon the table, who spleened against the use of comb foundation for surplus honey. What is good enough for me is good enough for my customers. What is not good enough for me, is not good enough for my customers.

Kentucky Bee and Honey Show.

The Kentucky State Bee-Keepers' Association will hold its annual meeting in Louisville, Ky., Aug. 29 and 30, at the Southern Exposition building. We hope to have a large attendance of the bee-keepers of the State, and also of other States, both North and South, as the convention will be in session during the week of the Honey and Bee Exhibit. And premiums amounting to \$80 are offered by the commissioners of agriculture of Kentucky, for Kentucky honey, and \$40 by the Exposition, for the finest Italian bees in Observatory hives. The premium on bees is open to the world, and we hope to see a fine display.

The Bee-Keepers' Convention and Honey and Bee Show will be held in the same week of the great exhibition of fruit, for which over \$2,000 in cash premiums will be paid.

We extend a cordial invitation to all bee-keepers' societies, to editors of bee publications, to honey-producers, and queen breeders, and all who are interested in apiculture, to be with us. We hope to have the father of modern bee-keeping with us, the Rev. L. L. Langstroth, to whom a cordial invitation has been given.

Reduced fair on all railroads, both North and South, will be offered to all who attend the Great Southern Exposition. It will doubtless be the grandest exposition ever held in the United States, in magnitude, and nearly equal to the Centennial.

N. P. ALLEN, Sec.

• The Northwestern Iowa, and Southwestern Wisconsin Bee-Keepers' Association, will hold its next meeting on Sept. 4, 1883, at John Swanzy's, 2 miles South of Ridot, Stephenson County, Ill. There will be facilities to take persons from the station to Mr. Swanzy's.

JONATHAN STEWART, Sec.

• Do not let your numbers of the BEE JOURNAL for 1883 be lost. The best way to preserve them is to procure a binder and put them in. They are very valuable for reference.

**SELECTIONS FROM
OUR LETTER BOX**

Bees Feet Disabled.

I send eight worker bees (taken from as many hives) with clogs of something on their feet. Is it from some blossoms they are working on? I have kept bees now for ten years, but never saw the like before. The bees are carrying these all out of the hives. I find the most of these clog-footed bees in the colonies that are working the strongest. Bees have not done much since white clover bloom, until to-day, when they are working very brisk through the middle of the day. Please let me know through the BEE JOURNAL what it is on the bees' feet. Will it amount to enough to reduce the colonies? If so, what is the remedy? I had an immense run on clover.

E. J. SCOFIELD.
Hanover, Wis., Aug. 6, 1883.

Enclosed find foot, leg and something else. Two of my colonies of bees are affected, as you will see, by the foot and leg, as it is the foot and leg of a bee. Please examine and tell, in the BEE JOURNAL, what it is and the remedy. DR. J. COOPERIDER.

Taylorsville, Ind., July 31, 1883.

[The objects attached to the feet of the bees, are the pollen masses of milkweed (*Asclepias*). The bees visit the flowers for the nectar which is abundant, but the arrangement of the parts of the blossom is such that they cannot gain access to the sweet fluid without coming in contact with a sticky substance at the end of these pollen masses, which are thus pulled out and carried from flower to flower. There is no cure except the destruction of the plants.—T. J. BURRILL.]

Not Half a Crop of Honey.

My brother and I represent 400 colonies of bees, which have been handled scientifically for comb honey, in the best section of this State. The beginning of the honey flow was grand, but the sudden cut off ten days ago, has made it a certainty that not a half crop will be taken.

E. A. MORGAN.
Columbus, Wis., Aug. 2, 1883.

Cyprians for Honey Gathering.

Up to noon, to-day, I have, this season, taken 308 lbs. of pure white honey from one colony of Cyprians; the honey is remarkably fine, clear and heavy. For the last five days, particularly noted, the daily yield has been from 10 to 12 lbs., and I reasonably expect 400 to 500 lbs. of white honey, this season, from this colony. The queen is not yet a year old; she has had no help from any other of my 85 colonies in the same yard or from any other source; every bee of the colony that has aided in producing this 308

pounds, has been hatched from her eggs, and, besides, I have made 7 nuclei from her, and her young queens appear equally promising. Basswood bloom has been good, but is getting past its best now. White clover has been abundant. This locality has had a good honey harvest, notwithstanding the heavy rains and cool weather. There are about 500 colonies of bees kept within the area of half a square mile, and large apiaries within a few miles, are all prospering this season.

GEO. M. LAWRENCE.
Warsaw, N. Y., Aug. 7, 1883.

Bees in Georgia.

My bees are doing better than they have in several years. Up to June 1, they did not do much but swarm, but during the month of June they stored honey fast, and then it set in dry, and they did not do much for a while; but at this writing they are making the air sing with their delightful hum, and I am encouraged with the prospect, and am going to begin extracting in a few days. I have 76 colonies in fine condition; some of them have no room for brood rearing, and I must give them room. There is no other person with the movable frame hive in this section but myself; they say they cannot have luck with bees, but if they would take the BEE JOURNAL a few years, and use some pluck, they would have luck. I delight in working with bees, and am always glad to see the JOURNAL come. Success to it.

H. M. WILLIAMS, M. D.
Bowdon, Ga., Aug. 1, 1883.

Bee and Honey Show.

Our Inter-State Fair opens at St. Joseph, Mo., Sept. 5, 1883. We expect a large attendance of bee-keepers, and we shall try to make it a good bee and honey show. I wish to say, through the BEE JOURNAL, that all bee-keepers, of any State, are invited to assist us in making a good display of honey, bees, queens, and bee-keepers' tools. Those who cannot come may send articles to me, and they will be exhibited. Our Fair will be good place to advertize bee-keepers' goods, (by exhibiting), as bee-keeping is on the increase. I shall not show anything in this department, for premiums, (being superintendent), but expect to exhibit at other Fairs, and I am willing to exhibit all books, papers, and other light articles, for others, if requested to do so, free of charge. Our bees have swarmed a great deal, and gathered some nice honey. We are having plenty of rain, and look for a good fall crop. D. G. PARKER.
St. Joseph, Mo., Aug. 2, 1883.

A Word about Transferring.

Three or four years ago I had occasion to transfer 4 or 5 colonies of bees from box to frame hives, and not liking cutting up brood combs and fitting them in frames (having tried it once), I placed the box hives on the top of the frame hives, full of comb, or full of sheets of foundation. This can be done with any shape of a box, as I nailed strips or thin pieces of boards on or under the uncovered parts, making it bee-tight, except the

entrance to the lower hive. This forces the bees to pass through their new home. Now, if you do your part right, you will be delighted to see how soon the transferring will commence; they will begin to occupy it for all purposes, store room, dining room, bed room, excepting a parlor, which is out of date with my bees (I bought some of them from James Heddon). In a few days (say a week) I lift the box hive off and examine the lower hive; if they are well started, and you find the queen there, remove the box to a new stand only a few feet away, if you wish to unite the second drive with the first. For uniting keep moving the hives nearer together, a few inches each day, so that they will be close together by the appointed time, which will be 21 days, in this case, when your old combs will be ready to extract from and melt up, after driving out the bees. Mr. Heddon has given other particulars to be observed in transferring so thoroughly that I take much pleasure in referring any one interested in transferring bees, to his article on page 367.

W. HARMER.

Manistee, Mich., Aug. 3, 1883.

Poor Dry Season in Texas.

We are having a pretty dry season just now. Bees are working on cotton bloom and scattering wild flowers. I had 3 colonies to start with in the spring; have 8 now, all in good condition. I have not taken much honey this season. M. C. GRANBERRY.

Austin, Texas, Aug. 6, 1883.

Unprecedented Honey Crop.

The honey flow here has been unprecedented and unlooked for. My best colony has given over 600 pounds of honey, up to date—over 100 pounds being comb honey, and I expect to get upwards of 700 pounds from it. The colony spoken of, carried in from 20 to 28 pounds of honey per day for nearly a week. I think there are upwards of 100,000 bees in the hive; it is a two-story one. E. F. SMITH.

Smyrna, N. Y., Aug. 7, 1883.

No Honey Glut, this Year.

It is interesting to read the items in regard to the honey production of the country. I have fully come to the conclusion that we have not, and their will not be a honey glut this season. Some bee men in the best part of the honey flow hawked their honey around at a shilling a pound. They should not be in haste. This section won't glut the honey market. I think that I live in a great honey-producing State, and white clover was bountiful, and is our greatest and best honey-producing plant. Basswood came and went without giving us a smell. Buckwheat is splendid, averaging 4 feet high, and gives a perfect sea of bloom, but producing little honey. I say, do not be in haste.

JOHN GOCHENOUR.

Freeport, Ill., Aug. 6, 1883.

[The way to keep up prices, is to supply the market only as fast as it is needed.—ED.]

Sweet Clover Honey.

Bees doing well, but not as well as H. W. Garrett's, of Coeyman's Hollow, N. Y. I was there yesterday, and Mr. Garrett took me through his apiary to show to me his box honey, which was very fine, and from 30 to 60 pounds on almost every hive, ready to come off. It was enough to make any bee man wish for acres and acres of sweet clover, that being what they have obtained so much honey from. No bee-keeper can afford to be without sweet clover. My opinion is that bee-keepers will have to cultivate honey-producing plants if they expect to make the business pay.

A. SNYDER.

Clarksville, N. Y., July 25, 1883.

Not Half a Crop of Honey Here.

We have had, so far, not half a crop of honey; not one-half of my bees have swarmed, which showed that honey was not plenty. My 50 colonies hardly making a living for the last two weeks; if it should continue a few weeks longer, I shall have to give them back the surplus, to save them. There was no honey from basswood this year.

H. T. HARTMAN.

Freeport, Ill., Aug. 4, 1883.

Hoary Vervain.

I send you two blossoms and two leaves of a plant that grows here in pastures and low ground. Bumble bees and honey bees work on it from morning until night. Is it a good honey plant, and what is its name (common name?) Bees have done very well so far, and we think there will be a good flow of fall honey if we have some more rain.

J. F. SELLERS.

Reynolds, Ill., July 24, 1883.

[The plant is the Hoary Vervain, or *Verbena stricta*. We have several wild verbenas which, though in appearance very unlike the popular cultivated flower of that name, are, botanically, closely allied, and are all good honey producers.—T. J. BURRILL.]

Poor Crop of White Honey.

The white honey crop in this section, the season for which is just closed, is light, and the prospect for a crop of dark honey is poor, the weather is so wet and cold. However, we shall have a large bloom, and if it should clear off warm, in a few days, I shall get some honey.

EDWIN THEW.

Saranac, N. Y., Aug. 5, 1883.

Italians Working on Red Clover.

We have had a heavy honey dew on the yellow willow since the 2d inst. The white clover and catnip bloom was immense. Bees are doing pretty well. I saw quite a large number of Italian bees working very busy on red clover this morning. I have both hybrids and Italians.

S. D. MCKINLEY, M.D.
Melrose, Iowa, Aug. 7, 1883.

Special Notices.

Examine the Date following your name on the wrapper label of this paper; it indicates the end of the month to which you have paid your subscription on the BEE JOURNAL.

For safety, when sending money to this office get either a post office or express money order, a bank draft on New York or Chicago, or register the letter. Postage stamps of any kind may be sent for amounts less than one dollar. Local checks are subject to a discount of 25 cents at Chicago banks. American Express money orders for \$5, or less, can be obtained for 5 cents.

We wish to impress upon every one the necessity of being very specific, and carefully to state what they desire for the money sent. Also, if they live near one post office, and get their mail at another, be sure to give us the address we already have on our books.

How to Create a Market for Honey.

We have now published another edition of the pamphlet on "Honey as Food and Medicine," with more new Recipes for Honey Medicines, all kinds of cooking in which honey is used, and healthful and pleasant beverages.

We have put the price still lower, to encourage bee-keepers to scatter them far and wide. Single copy 5 cents, postpaid; per dozen, 40 cents; per hundred, \$2.50. 500 will be sent postpaid for \$10.00, or 1,000 for \$15.00. On orders of 100 or more, we will print, if desired, on the cover-page, "Presented by," etc., (giving the name and address of the bee-keeper who scatters them). This alone will pay him for all his trouble and expense—enabling him to dispose of his honey at home, at a good profit. Try it, and you will be surprised.

Bee Pasturage a Necessity.—We have just issued a new pamphlet giving our views on this important subject, with suggestions what to plant, and when and how. It is illustrated with 26 engravings, and will be sent postpaid to any address for 10 cents.

Do not send coins in a letter. It is dangerous and increases the postage unnecessarily. Always send postage stamps, for fractions of a dollar, and, if you can get them—one-cent stamps; if not, any denomination of postage stamps will do.

Our Premiums for Clubs.

Any one sending us a club of two subscribers for 1 year, for the Weekly, with \$4, will be entitled to a copy of Bees and Honey, in cloth, postpaid.

For three subscribers, with \$6, we will send Cook's Manual, in paper, Emerson's Binder for the Weekly, or Apiary Register for 50 colonies.

For four subscribers, with \$8, we will send Cook's Manual in cloth, or Apiary Register for 100 colonies.

For five subscribers, with \$10, we will send the Apiary Register for 200 colonies, Quinby's New Bee-Keeping, Root's A B C of Bee Culture, or an extra copy of the Weekly BEE JOURNAL for one year.

To get any of the above premiums for the Monthly BEE JOURNAL send double the number of subscribers, and the same amount of money.

The Apilary Register.

All who intend to be systematic in their work in the apiary, should get a copy and commence to use it.

For 50 colonies (120 pages).....	\$1 00
" 100 colonies (220 pages).....	1 50
" 200 colonies (420 pages).....	2 00

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable ones.

Subscription Credits.—We do not acknowledge receipt of each subscription by letter. The label on your paper, or on the wrapper, shows the date to which your subscription is paid. When you send us money, if the proper credit is not given you, within two weeks thereafter, on your label, notify us by postal card. Do not wait for months or years, and then claim a mistake. The subscription is paid to the end of the month indicated on the wrapper-label. This gives a statement of account every week.

May we ask you, dear reader, to speak a good word for the BEE JOURNAL to neighbors who keep bees, and send on at least one new subscription with your own? Our premium, "Bees and Honey," in cloth, for one new subscriber to the Weekly, or two for the Monthly, besides your own subscription to either edition, will pay you for your trouble, besides having the satisfaction of knowing that you have aided the BEE JOURNAL to a new subscriber, and progressive apiculture to another devotee.

Bingham Smoker Corner.

Large Smokers need wide shields. Bingham's have them, and springs that do not rust and break, and bellows that sparks and smoke do not enter. The Conqueror has all improvements made to date, and a 3x7 inch stove, and 5x7 inch bellows. Sent post-paid for \$1.75. Address,

BINGHAM & HETHERINGTON,
Abronia, Mich.

CYPRIANS CONQUEROR.—All summer long it has been "which and tother" with me and the Cyprian colony of bees I have—but at last I am "boss." Bingham's "Conqueror Smoker" did it. If you want lots of smoke just at the right time, get a Conqueror Smoker of Bingham.

G. M. DOOLITTLE,
Borodino, N. Y.
Aug. 15, 1882.

EXCELLING ALL.—
Messrs. Bingham & Hetherington, Dear Sirs:—I am now selling your Smokers almost exclusively. You are excellingly yourselves in smokers all the time.

Respectfully,
J. G. TAYLOR, Patented, 1878.
Austin, Texas, May 10, 1883.

THE VERY BEST.—The Bingham "Conqueror" Smoker is the very best thing I have tried in that line.

M. M. LINDSAY.

Fulton, Tenn., July 24, 1883.

During the following three months, Bingham Smokers will be sent postpaid, per mail, on receipt of the following prices:

The "Doctor" . . . (wide shield)	3 1/4 in. fire tube, \$2.00
The Conqueror (wide shield) . . .	3 in. fire tube, 1.75
Large . . . (wide shield) . . .	2 1/4 in. fire tube, 1.50
Extra . . . (wide shield) . . .	2 in. fire tube, 1.25
Plain . . . (nar. shield) . . .	2 in. fire tube, 1.00
Little Wonder . . . (nar. shield) . . .	1 3/4 in. fire tube, .85
Bingham & Hetherington Uncapping Knife..	1.15

With thanks for letters of encouragement, and the absence of complaining ones, we tender to our thirty-five thousand patrons our best wishes.

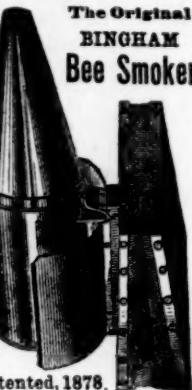
Very Respectfully yours,

BINGHAM & HETHERINGTON,
Abronia, Mich., June 1, 1883.

Special Notice.—We will, hereafter, supply the Weekly BEE JOURNAL for one year, and the seventh edition of Prof. Cook's Manual of the Apiary, bound in fine cloth, for \$2.75, or the Monthly Bee Journal, and the Manual in cloth for \$1.75. As this offer will soon be withdrawn, those who desire it should send for the book at once.

Constitutions and By-Laws for local Associations \$2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

Sample Copies of the AMERICAN BEE JOURNAL will be sent free to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.



Emerson Binders—made especially for the BEE JOURNAL, are lettered in gold on the back, and make a very convenient way of preserving the BEE JOURNAL as fast as received. They will be sent, post-paid, for 75 cents, for the Weekly; or for the Monthly, 50 cents. They cannot be sent by mail to Canada.

We carefully mail the BEE JOURNAL to every subscriber, but should any be lost in the mails we will cheerfully send another, if notified before all the edition is exhausted.

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or \$8 per 100.

COMB HONEY WANTED.

We are prepared to purchase large lots of Fancy COMB HONEY in 1 and 2 lb. sections, or Harbison frames, for which we will pay an advance of 5 cts. per pound over New York prices. **CASH ON DELIVERY** in sound condition in London; the price of extracted honey will be paid for all broken comb. This is an excellent opportunity for bee-keepers wishing to visit Europe. Correspondence solicited. **W. M. HOGE & CO.,**
The Apriary, Leconfield, Rd. N.
33Atf LONDON, ENGLAND.

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A SPECIALTY.

SEND FOR PRICE LIST.

GEO. M. GRAY,

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MEDINA, OHIO.

ITALIAN BEES AND QUEENS.—One Queen, not tested, \$1.00; tested, \$2.00. Bees, one colony, \$7.00; five colonies or more, \$6.50 each. S. A. SHUCK,
33D2t BRYANT, Fulton Co., ILL.

W. Z. HUTCHINSON,

Rogersville, Genesee County, Mich.

Makes a Specialty of rearing fine ITALIAN QUEENS. All Queens bred from imported queens, and from the purest and best home-bred Queens, and the cells built in full colonies. No black bees in the vicinity. Customers can have either light or dark Queens. Orders filled **PROMPTLY**. Single queen \$1.00; six queens for \$5.00; twelve or more, 75 cents each. Tested queens, \$1.50 each. Safe arrival guaranteed. "All Queens sent out are reared by himself." Make Money Orders payable at FLINT, MICH.

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THE BRITISH BEE JOURNAL AND BEE-KEEPER'S ADVISER.

The BRITISH BEE JOURNAL is published monthly, and contains the best practical information for the time being, showing what to do, and when and how to do it. **Rev. H. R. PEEL, Editor.**

We send the Weekly AMERICAN BEE JOURNAL and the British Bee Journal, both for \$3.00 a year.

BEES FOR SALE.—100 colonies of Bees in Modest frames (size 11x12%), mostly Hybrids. Also 100 Modest Hives complete. Price, \$3.00.

A. E. WOODWARD,
32Atf GROOM'S CORNERS, Saratoga Co., N.Y.

BEES and HONEY,

ON THE

Management of an Apiary for Pleasure and Profit; by

THOMAS C. NEWMAN.

Editor of the Weekly Bee Journal.

925 West Madison Street, Chicago, Ill.

Mrs. J. F. Upton gives the following notice of this book in the Bath, Maine, *Sentinel*:

A guide to the management of the apiary for profit and pleasure, by Thomas G. Newman. This work is designed to initiate beginners in bee-keeping in all the secrets of successful bee-culture. Beginning with the different races of bees, the author takes his readers along step by step, carefully explaining the different kinds of bees, illustrating each kind with the eggs and brood, explaining the terms used, the production of wax and comb, and the work done by these wonderful insects. The establishment of an apiary is next considered; the best location, time to commence, how many colonies to begin with, what kind of bees to get, how to care for a first colony, keeping bees on shares, changing the location, all of which is indispensable for a beginner to know. It is also important to know which kind of hive is the best, how to procure the best comb honey, how to procure it for market, how it should be marketed, what to do with candied comb honey, and how to extract honey. The scientific management of an apiary is then entered into, and illustrations of all the necessary applicances introduced. There is a chapter devoted to the honey extractor and its use, and another to comb foundation and its use. The various honey-producing plants and trees are named and illustrated. Various methods for exhibiting bees and honey at county and state fairs are described. The best and safest plans for wintering bees are discussed, the book closing with some general advice to beginners. The author says of his book on Bees and Honey, "it was not designed to supersede or supplant any of the valuable works on apiculture already published, but to supply a want for a cheap work for the beginners." We most cordially recommend this work not only to beginners, who will find it invaluable, but to all who are not already familiar with the lives and movements of these industrious and intelligent little workers. The information to be gained as to their habits, manner of breeding, intelligence, energy and wonderful instincts, by reading this book alone, is enough to make one regard the bee with admiration and amazement.

PRICE—Bound in cloth, 75 cents; in paper covers, 50 cents, postpaid.

THOMAS G. NEWMAN,

925 W. Madison St., Chicago, Ill.

A Liberal Discount to Dealers by the Dozen or Hundred.